

- 132 [ C1
- b) a SV40 polyadenylation region; and
  - c) a transcription regulatory region from human cytomegalovirus immediate early region HCMV IE1, wherein the transcription regulatory region is sufficient to cause transcription of a polypeptide coding sequence operably linked downstream from the transcription regulatory region.

261. The vector of claim ~~60~~<sup>1</sup>, wherein the polynucleotide sequence further comprises a linker that comprises a restriction site for insertion of the coding region of a polypeptide.

362. The vector of claim ~~61~~<sup>2</sup>, wherein the restriction site is a *Sall* site.

63. The vector of claim 60, wherein the transcription regulatory region comprises an enhanced promoter region.

64. The vector of claim 63, wherein the promoter is derived from a subclone of human cytomegalovirus (Towne strain).

Sub C2  
Sub C2  
65. The vector of claim 63, wherein the transcription regulatory region further comprises a first intron, proximal to a 3' end of the promoter in the human cytomegalovirus immediate early region, HCMV IE1.

Sub E2  
66. The vector of claim 60, wherein the SV40 polyadenylation region is derived from a plasmid constructed in the same manner as plasmid pSV7d.

67. The vector of claim 60, wherein the SV40 origin of replication is derived from the a plasmid constructed in the same manner as plasmid pSV72.

<sup>6</sup>~~68~~. The vector of claim <sup>1</sup>~~60~~, further comprising a selectable marker.

<sup>7</sup>~~69~~. The vector of claim <sup>5</sup>~~67~~, wherein the selectable marker is a polynucleotide sequence that encodes ampicillin resistance.

<sup>8</sup>~~70~~. The vector of claim <sup>1</sup>~~60~~, further comprising a bacterial origin of replication.

<sup>71</sup>. The vector of claim ~~60~~, wherein the polynucleotide sequence is present in plasmid pCMV6ARV120tpa, ATCC Accession No. 68249.

<sup>10</sup>~~72~~. The vector of claim <sup>2</sup>~~61~~, further comprising a coding region that encodes a polypeptide, inserted at the restriction site.

<sup>73</sup>. The vector of claim ~~72~~, wherein the polypeptide is at least a portion of gp 120 of HIV.

<sup>11</sup>~~74~~. The vector of claim <sup>10</sup>~~72~~, further comprising a region encoding a signal sequence effective in directing the secretion of the polypeptide encoded by the coding region, positioned upstream from the coding region.

<sup>12</sup>~~75~~. The vector of claim <sup>11</sup>~~74~~, wherein the signal sequence is derived from the human tissue plasminogen activator leader sequence.

<sup>76</sup>. A vector produced by the process comprising linking together in an operative manner:

- a) a SV40 origin of replication;
- b) a SV40 polyadenylation region; and
- c) a transcription regulatory region from human cytomegalovirus

C14  
B2  
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immediate early region HCMV IE1, wherein the transcription regulatory region is sufficient to cause transcription of a polypeptide coding sequence operably linked downstream from the transcription regulatory region.

77. The vector of claim 76, wherein the vector is constructed in the same manner as plasmid pCMV6a.

Sub E5  
78. A method for producing a vector for expression of a polypeptide in a mammalian cell comprising:

- a) providing a first polynucleotide that comprises a SV40 origin of replication;
- b) providing a second polynucleotide molecule that comprises a SV40 polyadenylation region;
- c) providing a third polynucleotide molecule that comprises a transcription regulatory region from human cytomegalovirus immediate early region HCMV IE1, wherein the transcription regulatory region is sufficient to cause transcription of a polypeptide coding sequence operably linked downstream from the transcription regulatory region; and
- d) linking the SV40 origin for replication, the SV40 polyadenylation region and the regulatory region from HCMV IE1 together to form a vector that is capable of effecting the transcription of a polypeptide coding sequence operatively linked downstream from the regulatory region.

79. An intron derived from transcription regulatory region from human cytomegalovirus immediate early region HCMV IE1, wherein the transcription regulatory region comprises an enhanced promoter region and the intron is proximal to a 3' end of the